UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/027,437	12/21/2001	Treliant Fang	20206-14	1963

7590 11/26/2003

Timothy N. Thomas
Woodard, Emhardt, Naughton,
Moriarty and McNett
111 Monument Circle, Suite 3700
Indianapolis, IN 46204-5137

EXAMINER	
HAMILTON, CYNTHIA	
ART UNIT	**PAPER NUMBER**
1752	5

DATE MAILED: 11/26/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/027,437	FANG, TRELIANT	
	Examin r	Art Unit	
	Cynthia Hamilton	1752	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *22 September 2003*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21 and 27-31* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-21 and 27-31* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

13)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

a) ☐ The translation of the foreign language provisional application has been received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____.
4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other:

DETAILED ACTION

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1 and 21 and 30 are objected to because of the following informalities: The examiner believes "mercatopropyltrimethoxysilane" is probably spelled "mercaptopropyltrimethoxysilane". The examiner has assumed this spelling is an alternate of the mercapto spelling or a misspelling. If it is only an art recognized alternative spelling then state so and this objection will be removed.

Appropriate correction is required.

6. The disclosure is objected to because of the following informalities: On page 7 in lines 5 and 9, "mercatopropyltrimethoxy-" is probably "mercaptopropyltrimethoxy-". The examiner has assumed this spelling is an alternate of the mercapto spelling or a misspelling. If it is only an art recognized alternative spelling then state so and this objection will be removed.

Appropriate correction is required.

7. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In claim 16 is found "... said plasticizer is a dialkylphthalate by weight." A worker of ordinary skill in the art would not be sure what limit if any was added in the words "by weight" without a numerical value attached to the "by weight". The examiner has given "by weight" no value as a claim limit for examination purposes.

8. Claims 27-29 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Applicant has not pointed out where the new claims 27-29 are supported, nor does there appear to be a written description of the claim limitation "a member selected from the group consisting of dialkylphthalates, dialkylmalonates, dialkylsebacates, dialkyladipates, and diglycidyl hexahydrophthalates" in the application as filed. What is supported in the original disclosure clearly in original claim 1 and original claim 22 (now cancelled) is " a plasticizer selected from the group consisting of dialkylphthalates, dialkylmalonates, dialkylsebacates, dialkyladipates, and diglycidyl hexahydrophthalates". Since these group members are each a genus of compounds, the limit of "plasticizer" is held originally disclosed with respect to the group listed. The loss of the term plasticizer from the claims opens up the scope of the claim to any of the group of dialkylphthalates, dialkylmalonates, dialkylsebacates, dialkyladipates, and diglycidyl hexahydrophthalates regardless of their nature with respect to plasticizing action. This is without explanation seen as a broadening of scope of the compositions set forth in the original disclosure. Applicants in their amendment did not explain the exchange of "member" in instant claims 27-29 for "plasticizer" with respect to support in the original application.

9. Claims 30-31 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurditch et al (US 2002/0076651 A1), Mrovs et al (US 6,409,312 B1), Mancini (US 6,459,771) in view of Patel (6,439,698 B1), Kohli et al (WO 99/142277), Konarski et al (US 2002/0128353) further in view of Daniel et al (Proceedings of SPIE) and Brewer et al (4,732,858). Hurditch et al teach the

addition of adhesion promoters in the amount of about 0.02 to 0.1% by weight to No specific adhesion promoters are given. In Hurditch, et al see particularly paragraphs [0020-0027]. Mancini as set forth in col. 3, lines 30-50 teaches the use of adhesion promoters with photoresists comprised of EPON® resin SU-8 which is identified by applicants on page 5 to be of the same structure as the octafunctional epoxidized novolac resin of claims 30-31. Mrvos et al teach the use generally of such photoresists using silane adhesion promoters that are also used as reactive diluents in the paragraph bridging col. 5-6 and col. 9, lines 20-34. Patel teaches using gamma-glycidyloxypropyltirmethoxysilane as a reactive diluent or film-enhancing agent in a photocurable epoxy resin used as an encapsulant wherein the resin can include SU-8 material. The amount of the amount suggested by Patel was 05 to 5 weight percent and preferably 0.5 to 5 weight percent of the formulation. In Patel, see particularly col. 6, last paragraph and col. 4, line 47. Kohli et al teach using gamma-glycidoxypropyltrimethoxysilane, gamma-mercaptopropyltrimethoxysilane and gamma-aminopropyltrimethoxysilane with SU-8 resins as part of primer solutions to improve adhesion. These are thermosetting epoxy resin compositions. In Kohli et al, see particularly the abstract, paragraph bridging pages 14-15, page 16, second paragraph, col. 12, lines 40-col. 13, lines 10, and pages 25-26. Konarski et al teach the use of adhesion promoters inclusive of glycidoxy-propyl trimethoxy silane and amminopropyl-triethoxy silane with heat cured multiepoxide group epoxy reins. In Konarski et al, see particularly paragraphs [0069, 0062]. Daniel et al teach using 3 amminopropyl-triethoxy silane as adhesion promoters in separate layers to be used with SU 8 resists. In Daniel et al, see particularly page 46. Brewer et al teach the need for adhesion promoters with silicon, silicon dioxide and silicon nitride substrates. They teach the use of aminoalkoxysilanes and

glycydoxypropyltrimethoxysilanes and 3-merocaptopropylsilanes in separate priming layers for this purpose to be used generally with photoresist compositions that do not adhere well. With respect to instant claims 30-31, the use of those adhesion promoters known in the art to be compatible with SU-8 resins in the compositions of Hurditch et al, Mrovs et al and Mancini as taught by Kohli et al and Patel to improve adhesion to silicon substrates such as silicon wafers as taught by Brewer et al and Daniel et al wherein such adhesion promoters are inclusive of gamma-glycidoxypropyltrimethoxysilane, gamma-mercaptopropyltrimethoxysilane and gamma0aminopropyltrimethoxylsilane would have been prima facie obvious as the use of materials for adhesion promoters that are known in the related arts to work with the SU –8 resists and to be advantageous with adherence problems to microelectronic supports. The maximization of the percentages of adhesion promoter with a specific system is held to be prima facie obvious and dependent upon the desired properties as weighed against loss of properties of the desired photoresist composition. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

10. Claims 27-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bantu et al (5,268,260) in view of incorporated Gerlach, Jr. et al (3,658,543) and incorporated Day et al (5,026,624). Bantu et al teach using plasticizers like those of Gerlach Jr. et al in their photoimagable compositions when needed. One of Bantu et al's compositions is one with epoxidized octafunctional bisphenol A formaldehyde novolac resin as taught by Day et al (5,026,624) which is Epirez SU-8 as found in Day et al in lines 56-68 in col. 2. The Gerlach, Jr. et al plasticizers include dialkyl phthalates, inclusive of dioctyl phthalate as set forth in col. 10,

lines 16-36. Thus, with respect to instant claims 27-29, the use of any of the plasticizers of Gerlach Jr. et al in the epoxy resist of Bantu et al as set forth in col. 4 and further disclosed in Day et al to aid in giving flexibility to the films formed but in amounts that did not significantly degrade the other properties of the coating as taught by Day et al in col. 6, lines 18-33 when teaching about additives in their formulations. The maximization of the percentages of plasticizer with a specific system is held to be prima facie obvious and dependent upon the desired properties as weighed against loss of properties of the desired photoresist composition. "[W]here the general conditions of a claim are disclosed in the prior art, it is not inventive to discover the optimum or workable ranges by routine experimentation." *In re Aller*, 220 F.2d 454, 456, 105 USPQ 233, 235 (CCPA 1955).

11. Applicants presented no arguments with respect to Bantu et al in view of Gerlach, Jr. et al. which was used against now cancelled claims 22-24 from which much of instant claims 27-29 seem to have been taken.

12. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Gelorme et al (4,882,245) in view of Kline et al (6,022,050). Gelorme et al teach the instant compositions of claim 27 with the exception of the specific plasticizer given. Gelorme et al in col. 4, lines 25-40, teach using as an effective plasticizer a reactive diluent such as cycloaliphatic epoxides but also staes "although other suitable reactive diluent will readily come to mind to those of ordinary skill in the art". Kline et al teach the use of diglycidyl ether of hexahydrophthalic acid as an equivalent reactive diluent for epoxy silicone resins and lists it among many of those set forth by Gelorme et al. In Kline et al, see particularly col. 6, lines 1-12. With respect to instant claim 27, the use of the diglycidyl ether of hexahydrophthalic acid in exchange for the diluents set forth by

Gelorme et al would as a plasticizer be prima facie obvious in view of Kline et al teaching the equivalency of it with those listed by Gelorme et al and because it is also used with an epoxy resin as a reactive diluent in the photocure arts and in view of Gelorme et al teaching other suitable reactive diluents could be used as they would come to mind to those of ordinary skill in the art.

13. Claims 1-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hurditch et al (US 2002/0076651 A1), Mrovs et al (US 6,409,312 B1), Mancini (US 6,459,771), in view of Patel (6,439,698 B1), Kohli et al (WO 99/142277), Konarski et al (US 2002/0128353) further in vdiw of Daniel et al (Proceedings of SPIE) and Brewer et al (4,732,858) further in view of Gelorme et al and Kline et al and Shaw et al (Negative photoresists for Optical Lithography page 9 of 16). Hurditch et al teach the addition of adhesion promoters. No specific adhesion promoters are given. In Hurditch, et al see particularly paragraphs [0020-0027]. Mancini as set forth in col. 3, lines 30-50 teaches the use of adhesion promoters with photoresists comprised of EPON® resin SU-8 which is identified by applicants on page 5 to be of the same structure as the octafunctional epoxidized novolac resin of claims 30-31. Mrvos et al teach the use generally of such photoresists using silane adhesion promoters that are also used as reactive diluents in the paragraph bridging col. 5-6 and col. 9, lines 20-34. Patel teaches using gamma-glycidyloxypropyltirmethoxysilane as a reactive diluent or film-enhancing agent in a photocurable epoxy resin used as an encapsulant wherein the resin can include SU-8 material. The amount of the amount suggested by Patel was 0.5 to 5 weight percent and preferably 0.5 to 5 weight percent of the formulation. In Patel, see particularly col. 6, last paragraph and col. 4, line 47. Kohli et al teach using gamma-glycidoxypropyltrimethoxysilane, gamma-

mercaptopropyltrimethoxysilane and gamma-aminopropyltrimethoxysilane with SU-8 resins as part of primer solutions to improve adhesion. These are thermosetting epoxy resin compositions. In Kohli et al, see particularly the abstract, paragraph bridging pages 14-15, page 16, second paragraph, col. 12, lines 40-col. 13, lines 10, and pages 25-26. Konarski et al teach the use of adhesion promoters inclusive of glycidoxy-propyl trimethoxy silane and amminopropyl-triethoxy silane with heat cured multiepoxide group epoxy reins. In Konarski et al, see particularly paragraphs [0069, 0062]. Daniel et al teach using 3 amminopropyl-triethoxy silane as adhesion promoters in separate layers to be used with SU 8 resists. In Daniel et al, see particularly page 46. Brewer et al teach the need for adhesion promoters with silicon, silicon dioxide and silicon nitride substrates. They teach the use of aminoalkoxysilanes and glycydoxypropyltrimethoxysilanes and 3-merocaptopropylsilanes in separate priming layers for this purpose to be used generally with photoresist compositions that do not adhere well. With respect to instant claims 30-31, the use of those adhesion promoters known in the art to be compatible with SU-8 resins in the compositions of Hurditch et al, Mrovs et al and Mancini as taught by Kohli et al and Patel to improve adhesion to silicon substrates such as silicon wafers as taught by Brewer et al and Daniel et al wherein such adhesion promoters are inclusive of gamma-glycidoxypropyltrimethoxysilane, gamma-mercaptopropyltrimethoxysilane and gamma0aminopropyltrimethoxylsilane would have been prima facie obvious as the use of materials for adhesion promoters that are known in the related arts to work with the SU –8 resists and to be advantageous with adherence problems to microelectronic supports. The maximization of the percentages of adhesion promoter with a specific system is held to be prima facie obvious and dependent upon the desired properties as weighed against loss of properties of the desired

photoresist composition. Gelorme et al teach the instant compositions of claim 27 with the exception of the specific plasticizer given. Gelorme et al in col. 4, lines 25-40, teach using as an effective plasticizer a reactive diluent such as cycloaliphatic epoxides but also states "although other suitable reactive diluent will readily come to mind to those of ordinary skill in the art". Kline et al teach the use of diglycidyl ether of hexahydrophthalic acid as an equivalent reactive diluent for epoxy silicone resins and lists it among many of those set forth by Gelorme et al. In Kline et al, see particularly col. 6, lines 1-12. Daniel teach on page 46 that SU –8 materials have poor adhesion and are brittle, thus the use of known plasticizers and adhesion promoters with such material as given above would have been prima facie obvious to reduce both of these problems in the amounts sufficient to help but no hinder the photoresist composition to work. As to the use of gamma butyrolactone as solvent for the SU-resists thus meeting the needs of the heat requirements, this is a well known solvent for the SU-8 material for this reason as already addressed by the applicant in their cited prior art to Shaw et al.

14. Applicant's arguments filed September 22, 2003 have been fully considered but they are not persuasive. Applicants have amended claims 1-20 such that "comprising" has been replaced by "consisting essentially of". Claim 21 was not so amended. New claims 27-31 have "consisting essentially of" as well with respect to the composition given. They have cited this "consisting essentially of" in their arguments but never state what if anything in the prior art is excluded by "consisting essentially of". The examiner notes for the record that the transitional phrase "consisting essentially of" limits the scope of a claim to the specified materials or steps "and those that do not materially affect the basic and novel characteristic(s)" of the claimed invention. In re Herz, 537 F.2d 549, 551-52, 190 USPQ 461, 463 (CCPA 1976) (emphasis in

original. For the purposes of searching for and applying prior art under 35 U.S.C. 102 and 103, absent a clear indication in the specification or claims of what the basic and novel characteristics actually are, "consisting essentially of" will be construed as equivalent to "comprising." See, e.g., PPG, 156 F.3d at 1355, 48 USPQ2d at 1355. See also In re Janakirama-Rao, 317 F.2d 951, 954, 137 USPQ 893, 895-96 (CCPA 1963). If an applicant contends that additional steps or materials in the prior art are excluded by the recitation of "consisting essentially of," applicant has the burden of showing that the introduction of additional steps or components would materially change the characteristics of applicant's invention. In re De Lajarte, 337 F.2d 870, 143 USPQ 256 (CCPA 1964). See also Ex parte Hoffman, 12 USPQ2d 1061, 1063-64 (Bd. Pat. App. & Inter. 1989). Applicants argue percentages and the examiner has addressed the issue by citation of some ranges for the additives and by stating a worker of ordinary skill in the art recognized the problem set forth by applicants and would use art known means to overcome the problems in amounts that would yield results without degrading the properties desired in the photoresists of the prior art. The examiner notes however, that claims 1-6, 13, 16-17 and 20 have no percentages with respect to the components present and only claim 21 has a weight percentage for every component listed but accounts for as little as 69.5% by weight of the composition set forth.

Applicants argue that the references cited by the Office do not "teach or suggest that the improved properties provided by applicant's invention would be provided even if the combination suggested by the Office were made." The examiner notes the rationale to modify or combine the prior art does not have to be expressly stated in the prior art; the rationale may be expressly or impliedly contained in the prior art or it may be reasoned from knowledge generally

available to one of ordinary skill in the art, established scientific principles, or legal precedent established by prior case law. In re Fine, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988); In re Jones, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992). See also In re Kotzab, 217 F.3d 1365, 1370, 55 USPQ2d 1313, 1317 (Fed. Cir. 2000) (setting forth test for implicit teachings); In re Eli Lilly & Co., 902 F.2d 943, 14 USPQ2d 1741 (Fed. Cir. 1990) (discussion of reliance on legal precedent); In re Nilssen, 851 F.2d 1401, 1403, 7 USPQ2d 1500, 1502 (Fed. Cir. 1988) (references do not have to explicitly suggest combining teachings); Ex parte Clapp, 227 USPQ 972 (Bd. Pat. App. & Inter. 1985) (examiner must present convincing line of reasoning supporting rejection); and Ex parte Levengood, 28 USPQ2d 1300 (Bd. Pat. App. & Inter. 1993) (reliance on logic and sound scientific reasoning). The strongest rationale for combining references is a recognition, expressly or impliedly in the prior art or drawn from a convincing line of reasoning based on established scientific principles or legal precedent, that some advantage or expected beneficial result would have been produced by their combination. In re Sernaker, 702 F.2d 989, 994-95, 217 USPQ 1, 5-6 (Fed. Cir. 1983). The examiner has set forth such reasoning in her rejections.

Applicants argue that Hurditch et al, Mrvos et al and Mancini do not teach using 0.5 to 3% by weight of a member selected from the group consisting of dialkylphthalates, dialkylmalonates, dialkylsebacates, dialkyladipates and diglycidyl hexahydrophthalates or do not teach the use of 1-6% by weight ob a member selected from the group consisting of glycidoxypropanetrimethoxysilane, mercatopropyltrimethoxysilane and aminopropyltrimethoxysilane. The examiner notes this argument is relevant only to claims 14-15, 18-19, 21 and 27-31. These are the only claims with such limitations in them. The examiner

has stated in her rejections that Patel teaches a range of 0.5 to 5 weight percent of the gamma-glycidyloxypropyltirmethoxysilane as a reactive diluent. Daniel teach on page 46 that SU –8 materials have poor adhesion and are brittle, thus the use of known plasticizers and adhesion promoters with such material as given above would have been prima facie obvious to reduce both of these problems in the amounts sufficient to help but no hinder the photoresist composition to work. Thus, while the specific ranges are not given, the use of them in ranges that will work is understood by workers of ordinary skill in the art as well as which plasticizers and adhesion promoters would be known in the art to be compatible with SU-8. Applicants made a showing in their specification with respect to only one specific composition. The additives used were dioctyl phthalate and glycidoxypropane-trimethoxysilane. While other compositions were made, they were not compared to compositions without both additives. Applicants have not pointed out where the combination of references fails to make obvious the instant invention. Applicants have not pointed out if any special significance is given to "consisting essentially of" in their claims. Applicants have not pointed out in claims 1-6, 13, 16-17 and 20 why the combination of references is not properly used by the examiner in her rejection. For these reasons and those already given in the proceeding paragraphs, the rejections are held valid and maintained.

15. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO

MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Cynthia Hamilton whose telephone number is (703) 308-3626. As of December 12, 2003, this telephone number will be 571-272-1331. The examiner can normally be reached on Monday-Friday, 9:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Mark Huff can be reached on 703-308-2464. As of December 12, 2003 this phone number will be 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703 305 0661.

Primary Examiner Cynthia Hamilton

Art Unit 1752